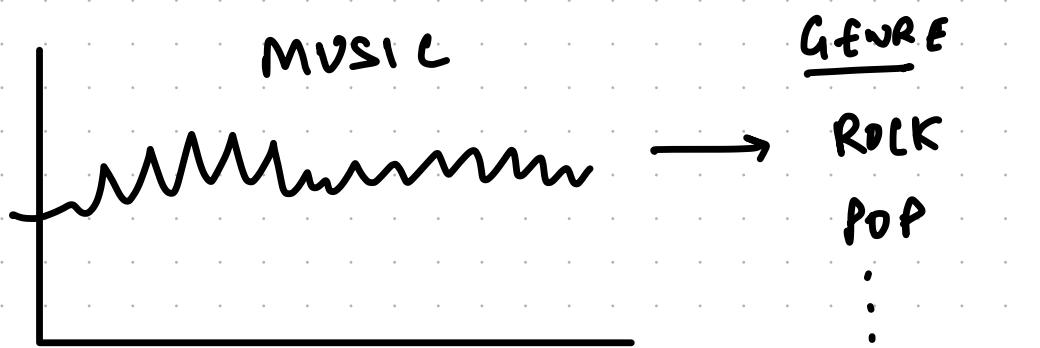


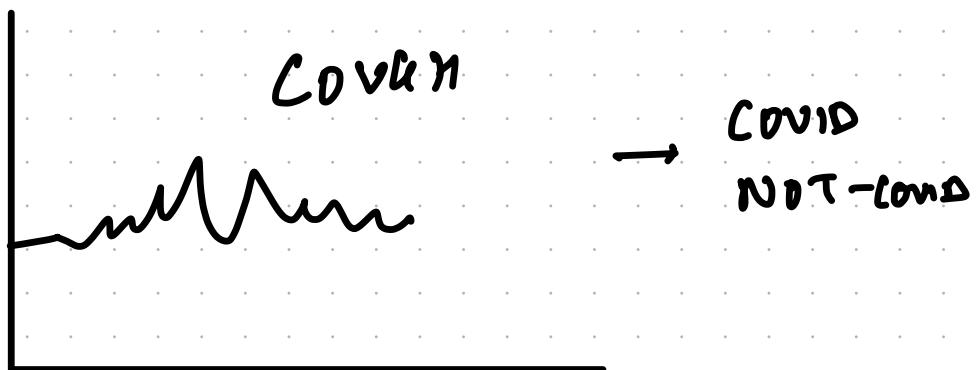
# 1D data



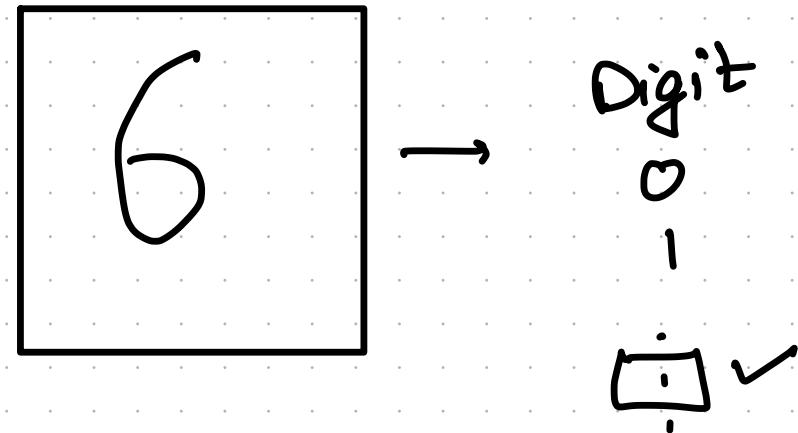
1D data



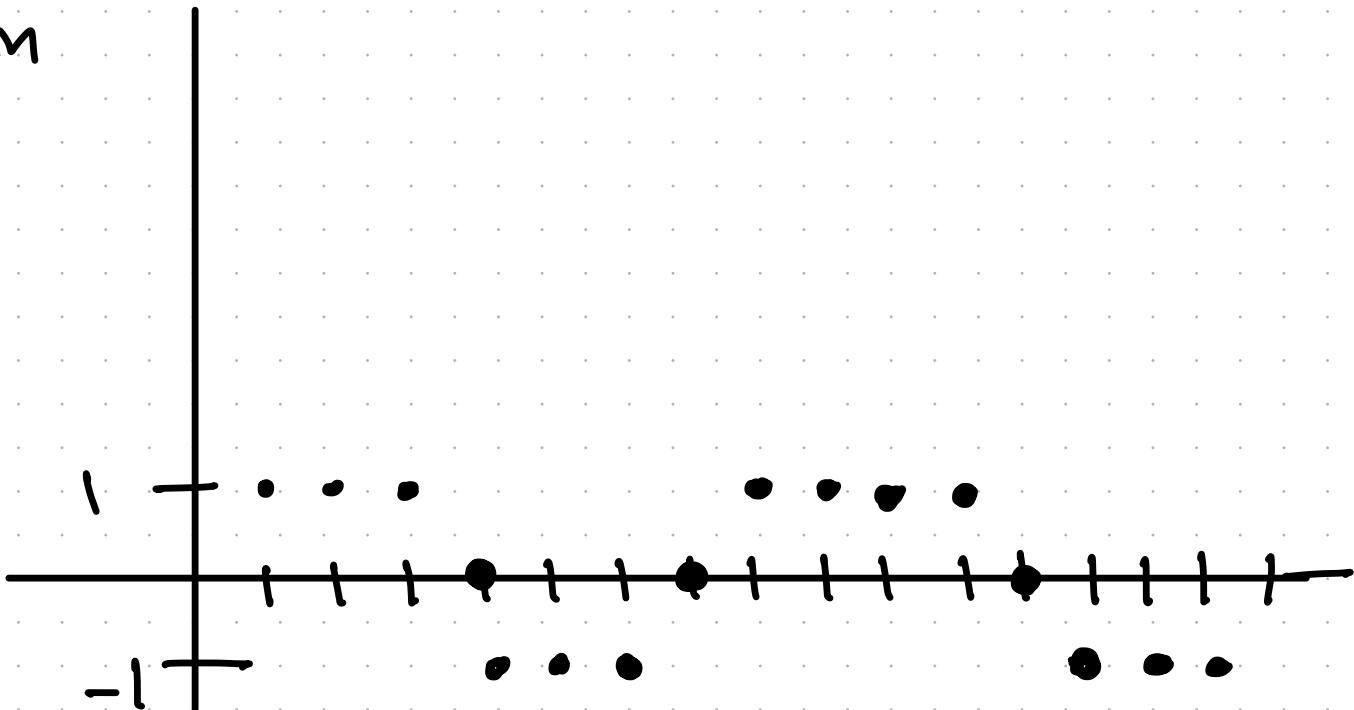
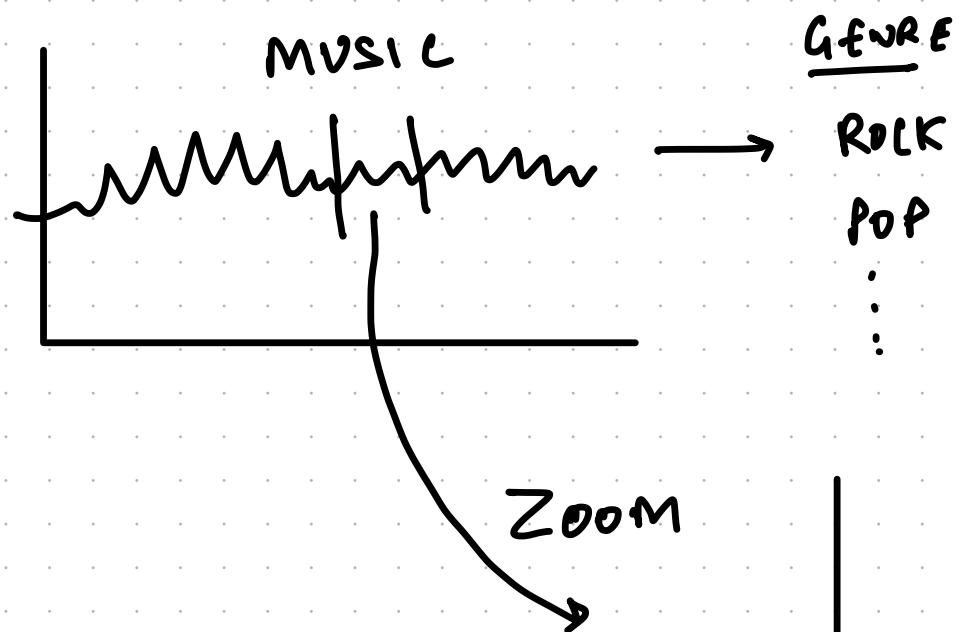
OR



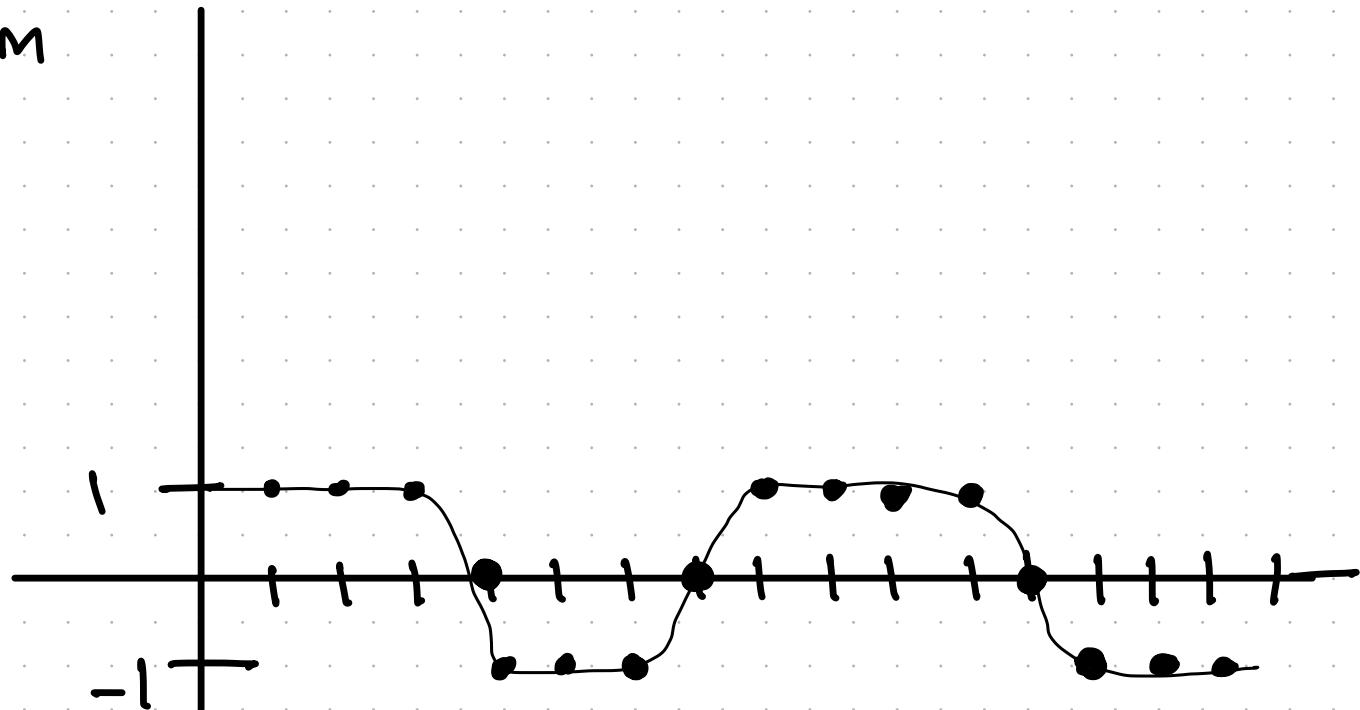
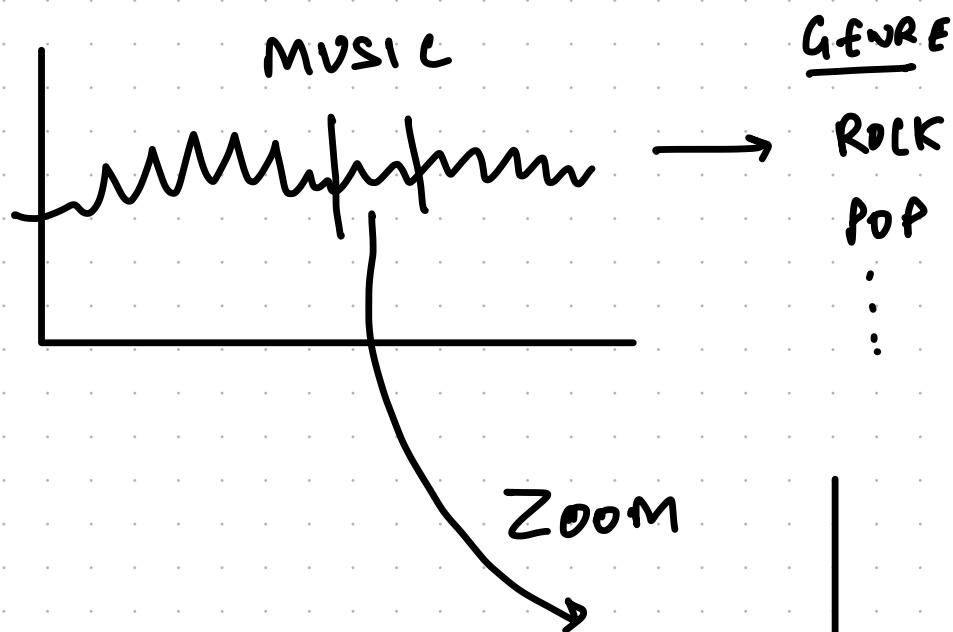
2D (Image data)



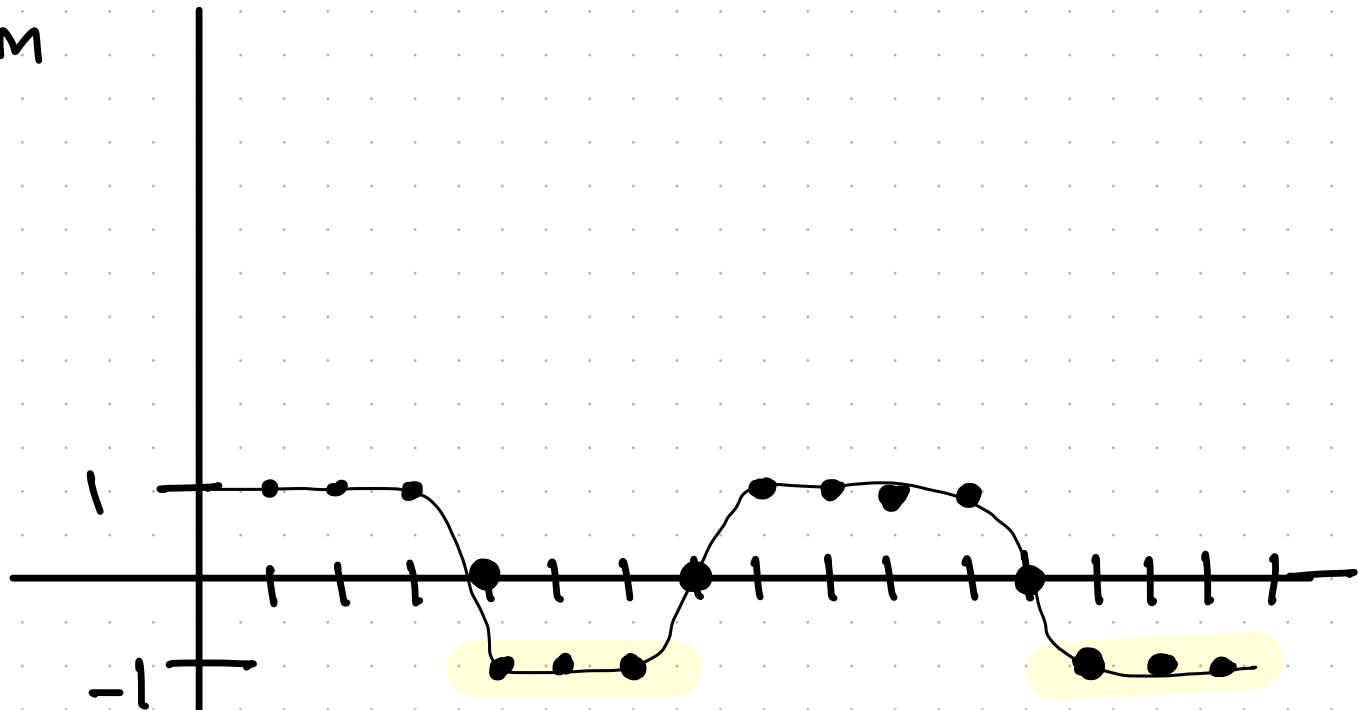
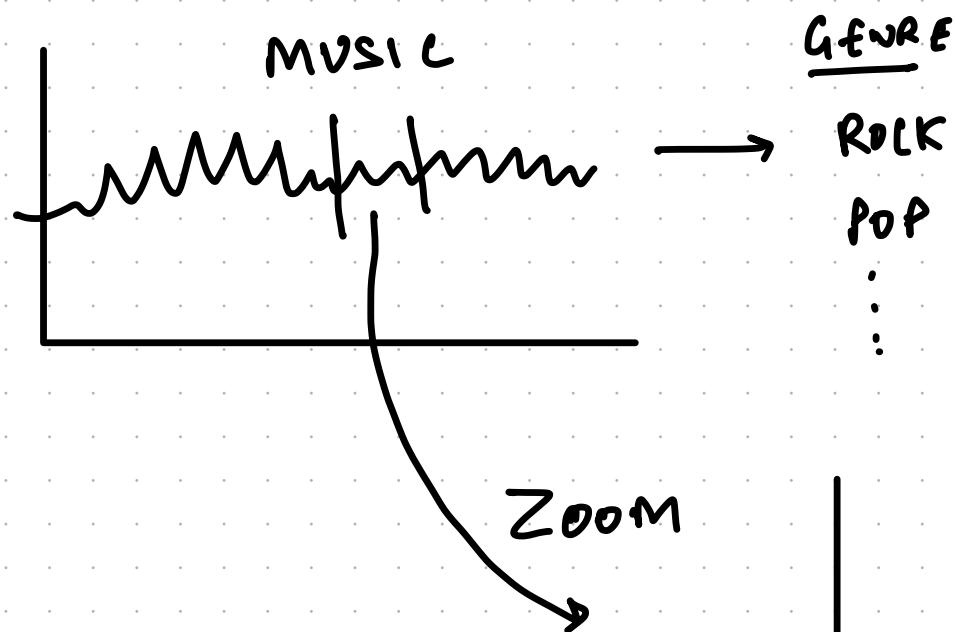
1D data



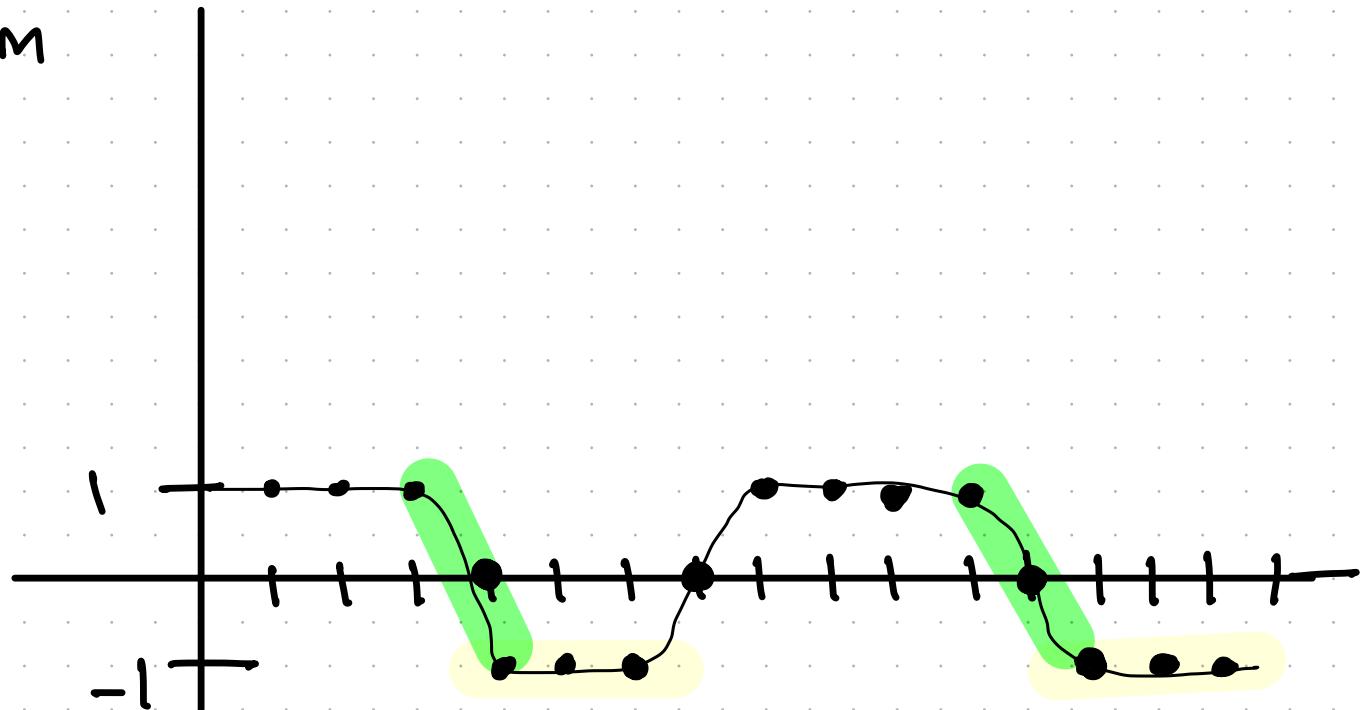
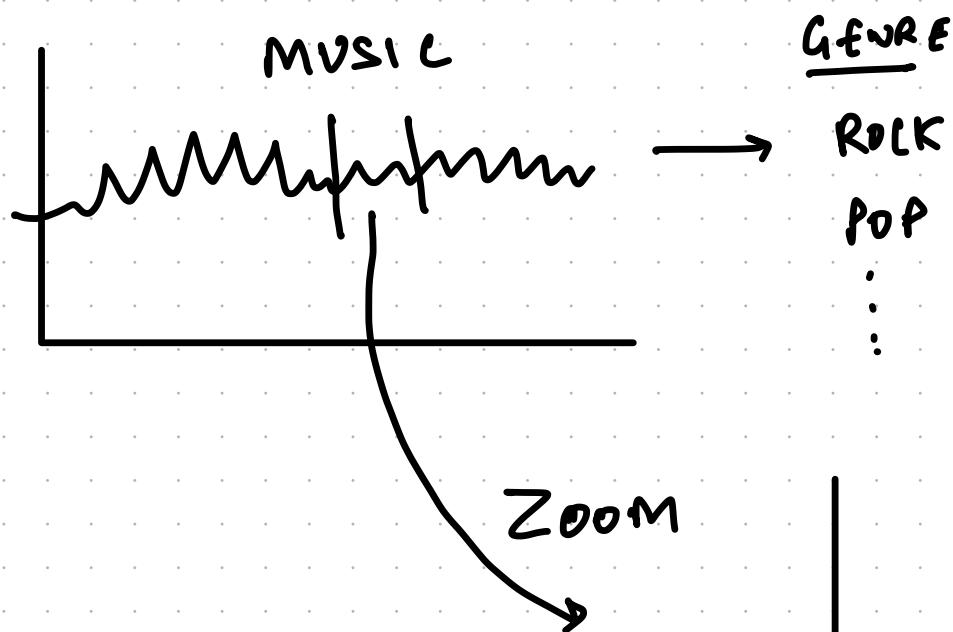
1D data



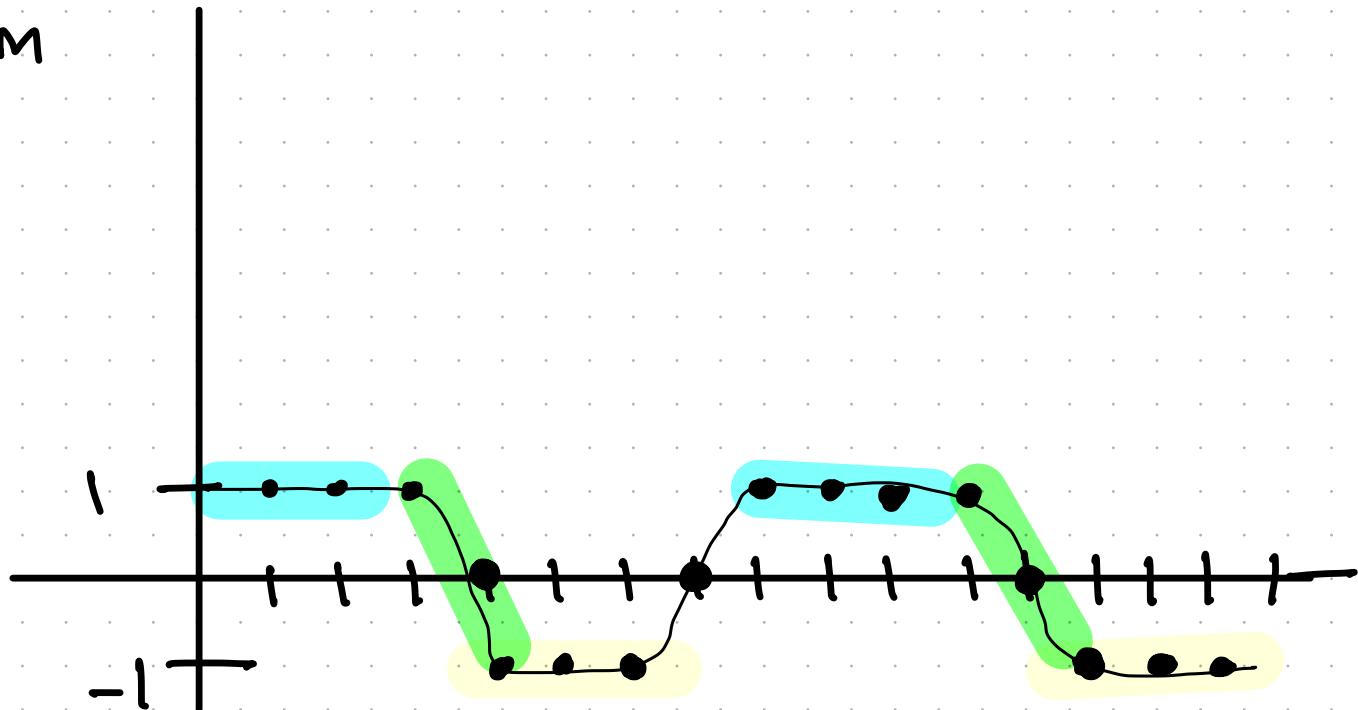
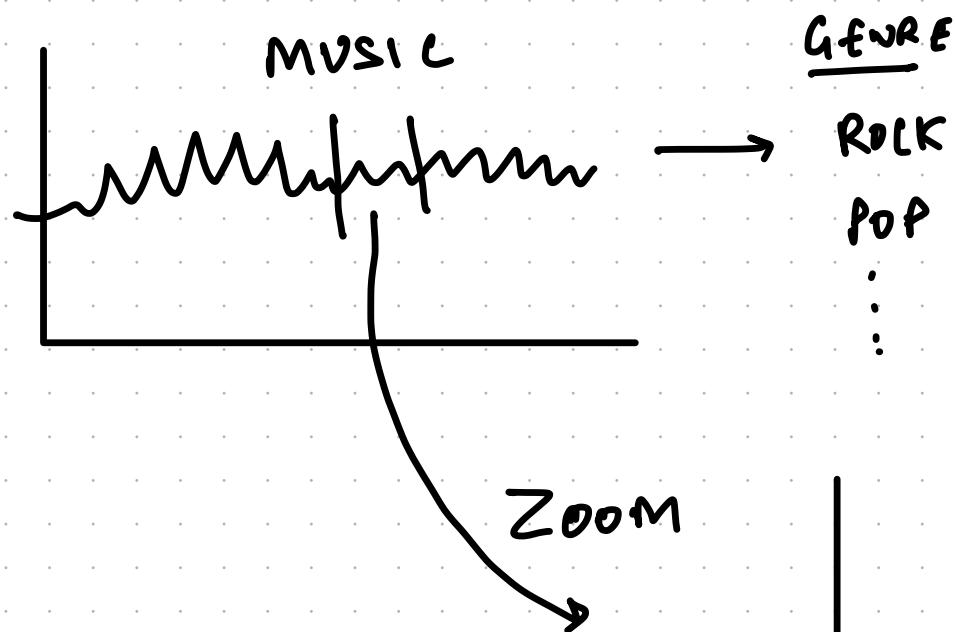
1D data



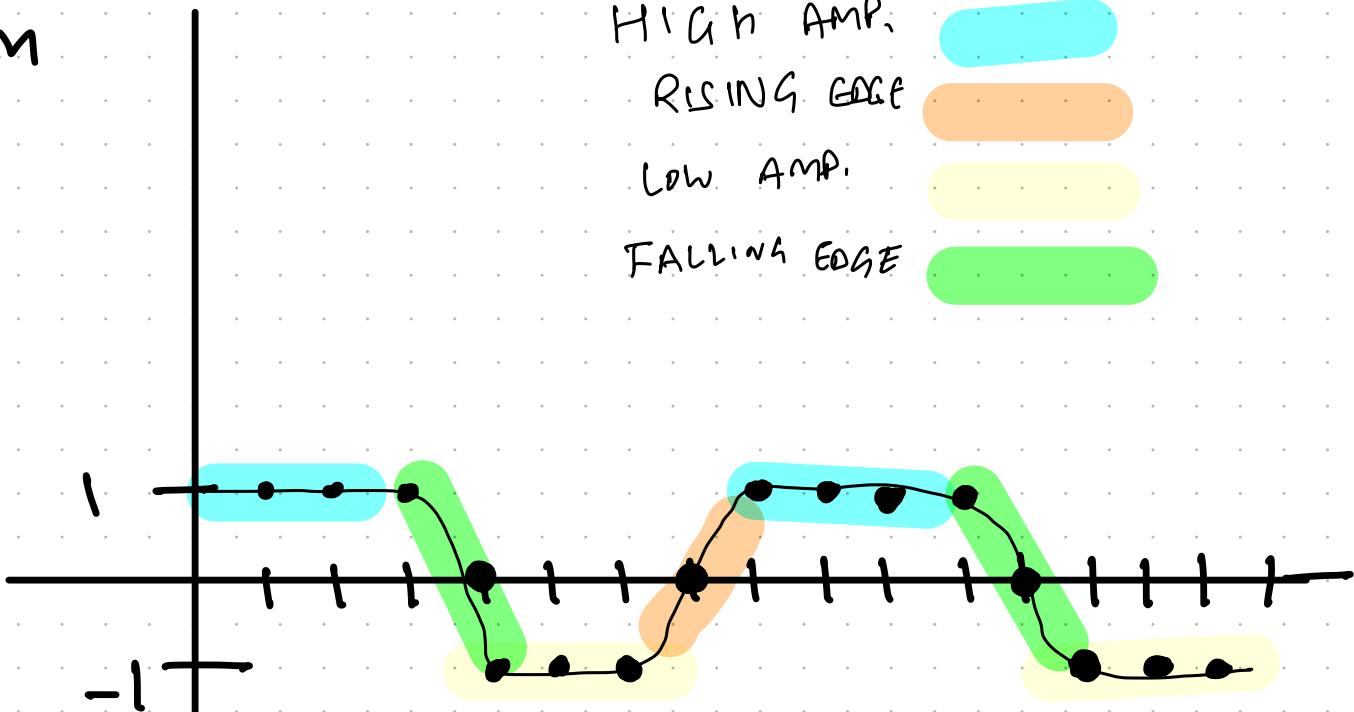
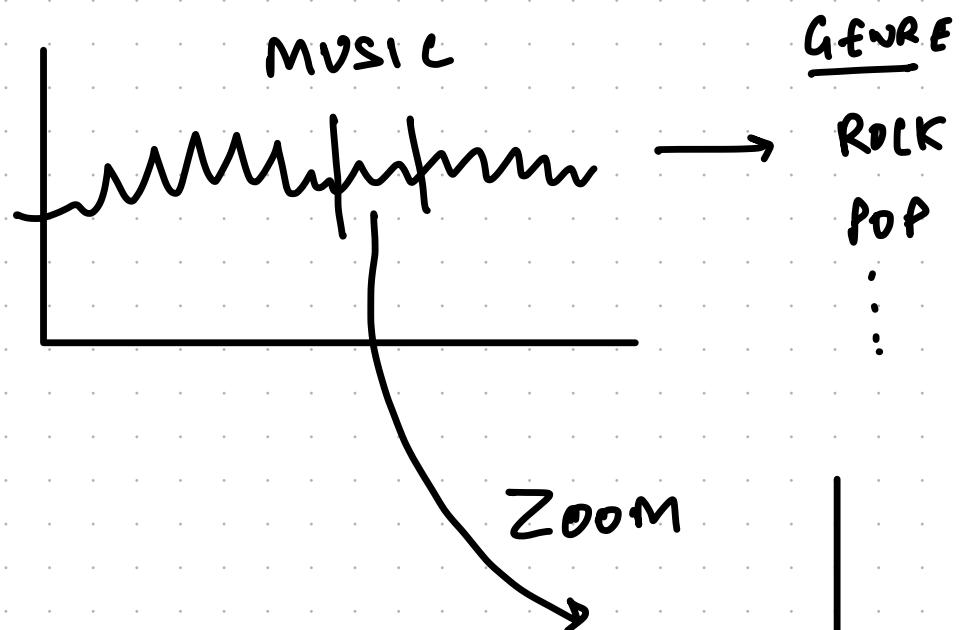
1D data



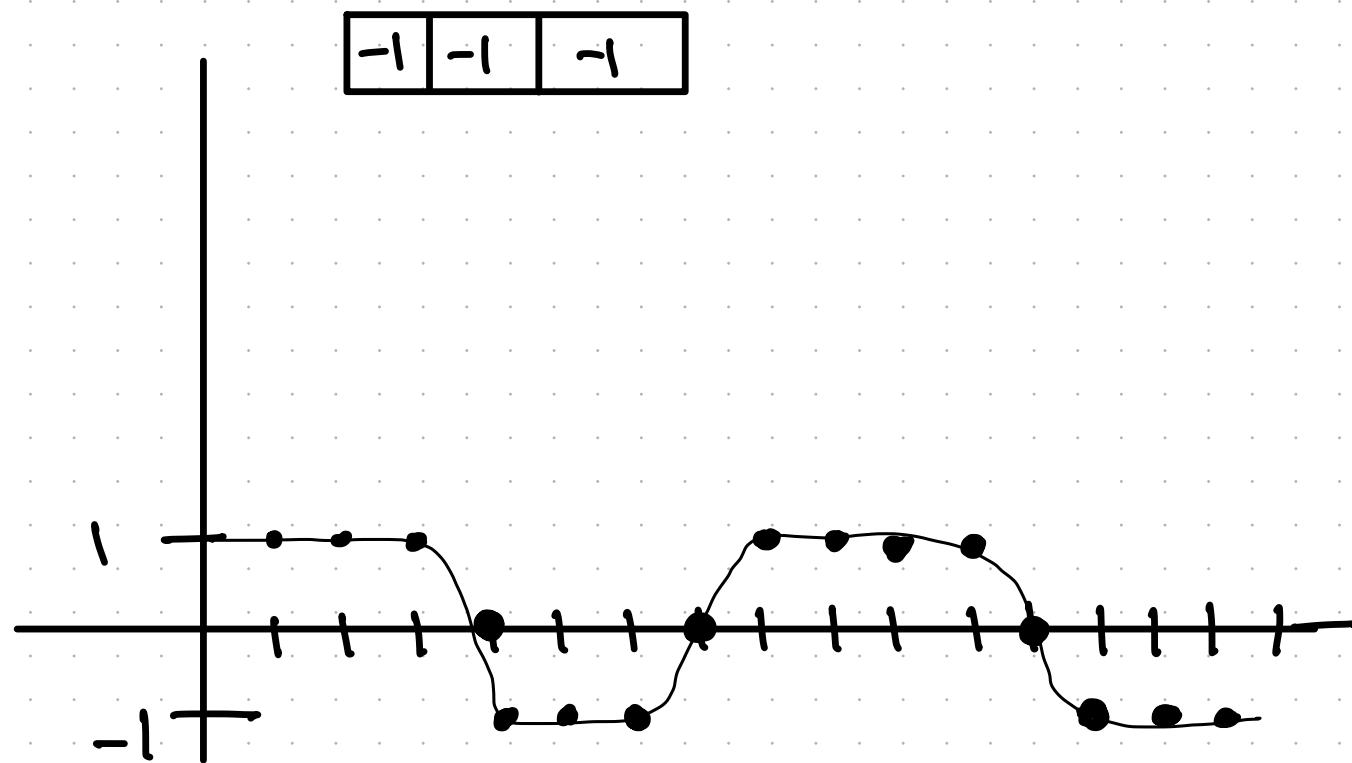
1D data



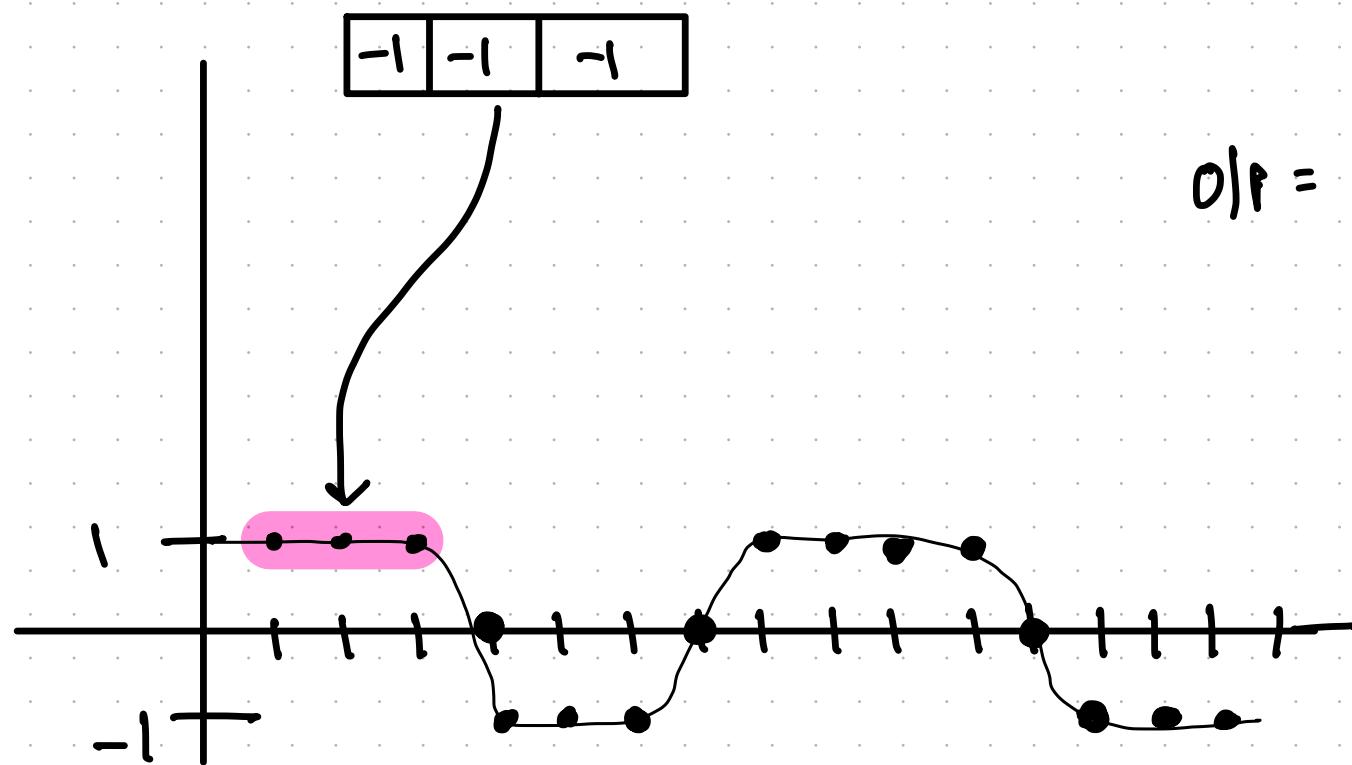
1D data



# LOW Amplitude Filter

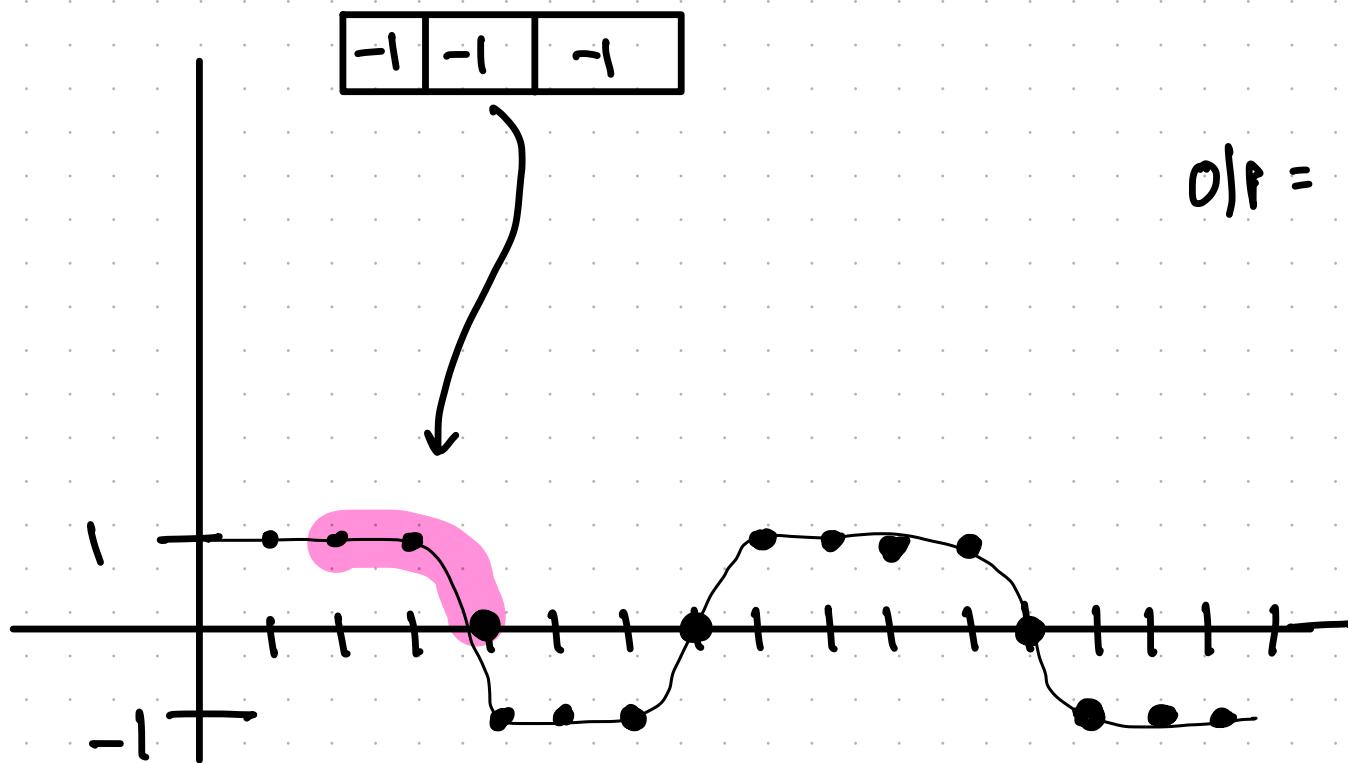


# LOW Amplitude Filter



$$0|x| - 1|x| - 1|x| \\ = -3$$

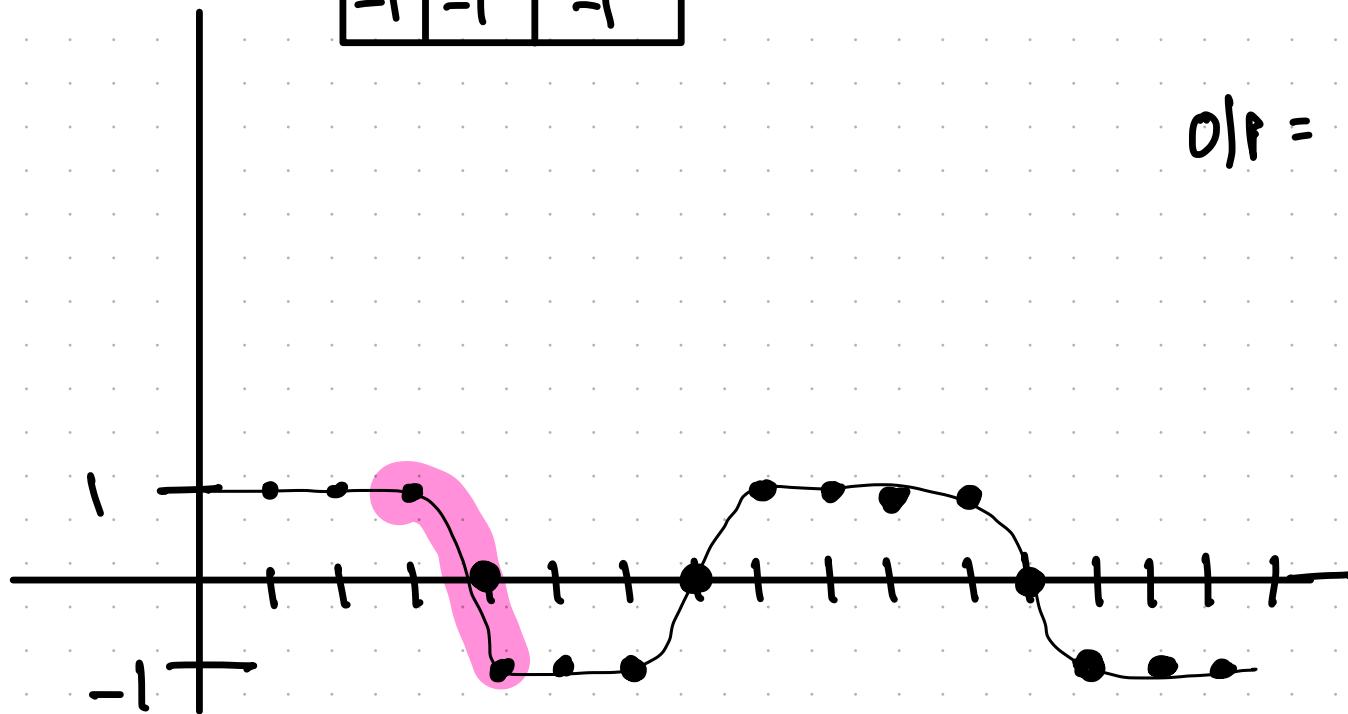
# LOW Amplitude Filter



$$\begin{aligned}0|p &= -1 \times 1 - 1 \times 1 - 1 \times 0 \\&= -2\end{aligned}$$

# LOW Amplitude Filter

$$\begin{array}{|c|c|c|} \hline -1 & -1 & -1 \\ \hline \end{array}$$

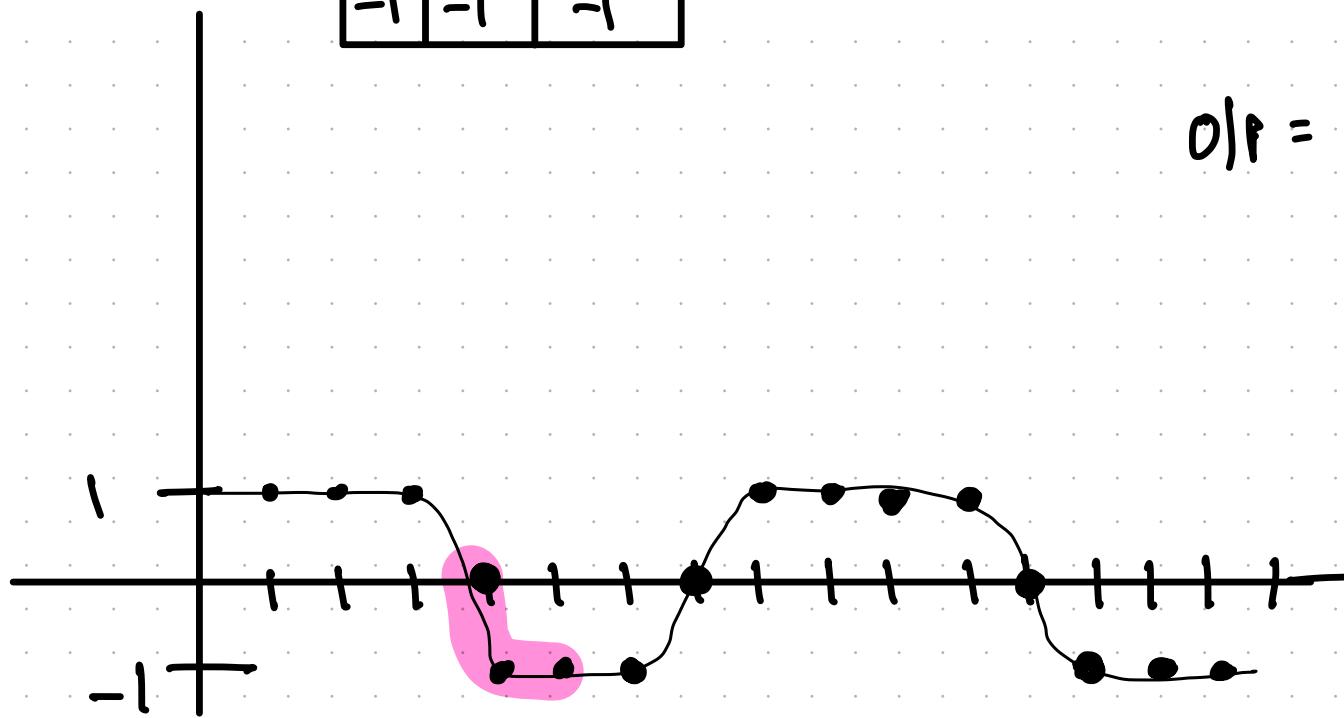


$$\begin{aligned} 0|x| &= -1 \times 1 - 1 \times 0 - 1 \times -1 \\ &= 0 \end{aligned}$$

# Low Amplitude Filter

$$\begin{array}{|c|c|c|} \hline -1 & -1 & -1 \\ \hline \end{array}$$

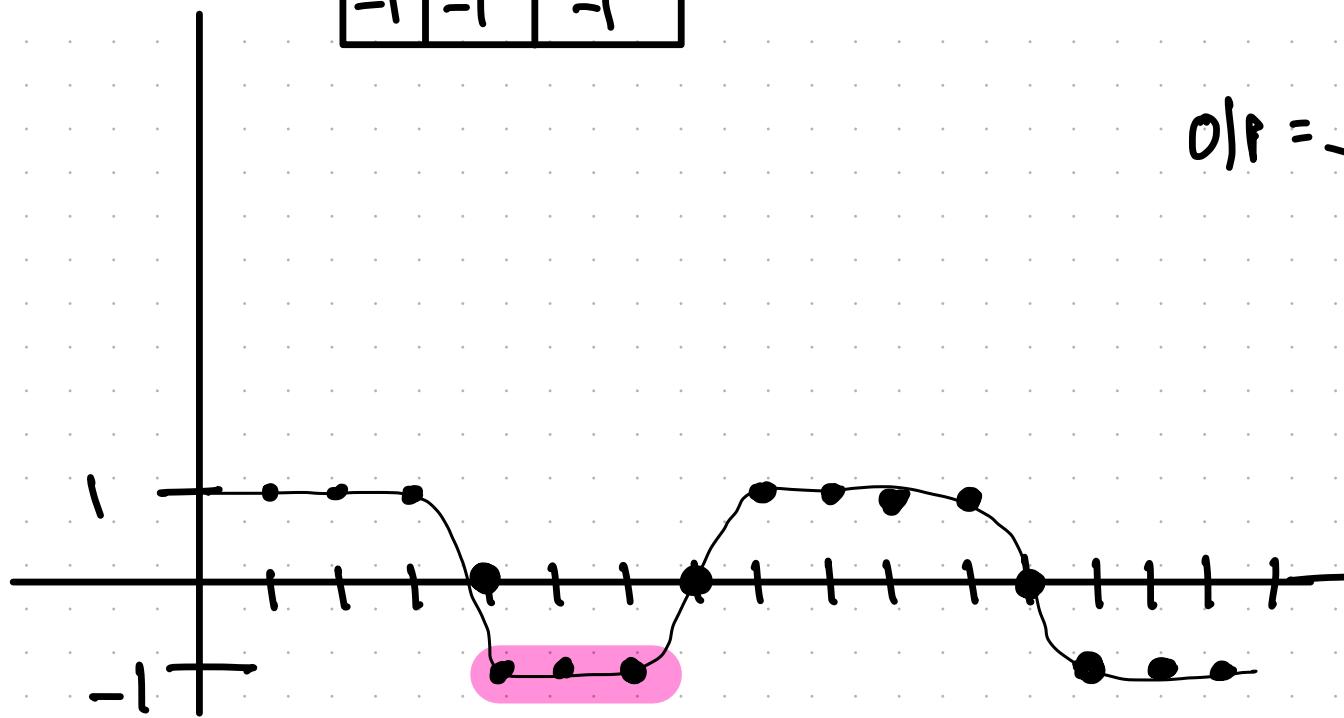
$$0|P = 2$$



# LOW Amplitude Filter

$$\begin{array}{|c|c|c|} \hline -1 & -1 & -1 \\ \hline \end{array}$$

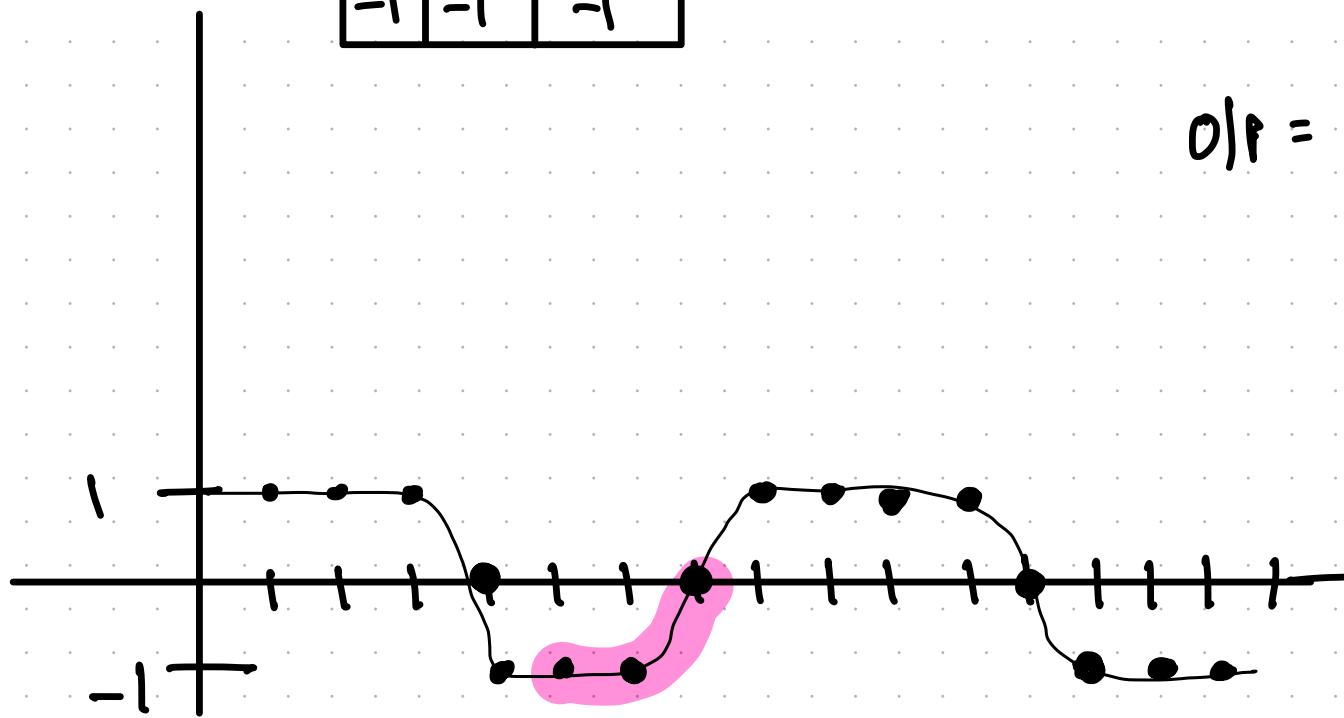
$$0|P = 3$$



# Low Amplitude Filter

$$\begin{array}{|c|c|c|} \hline -1 & -1 & -1 \\ \hline \end{array}$$

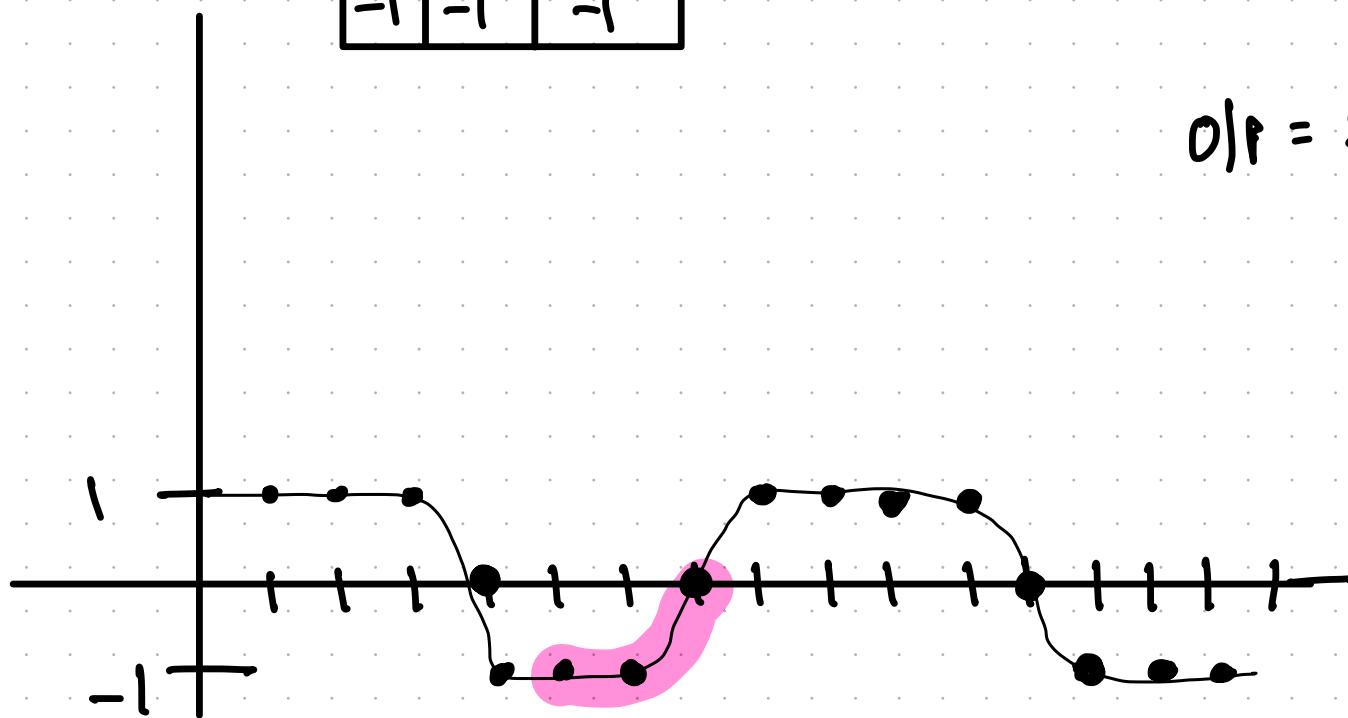
$$0|p = 2$$



# LOW Amplitude Filter

$$\begin{array}{|c|c|c|} \hline -1 & -1 & -1 \\ \hline \end{array}$$

$$0|p = 2$$



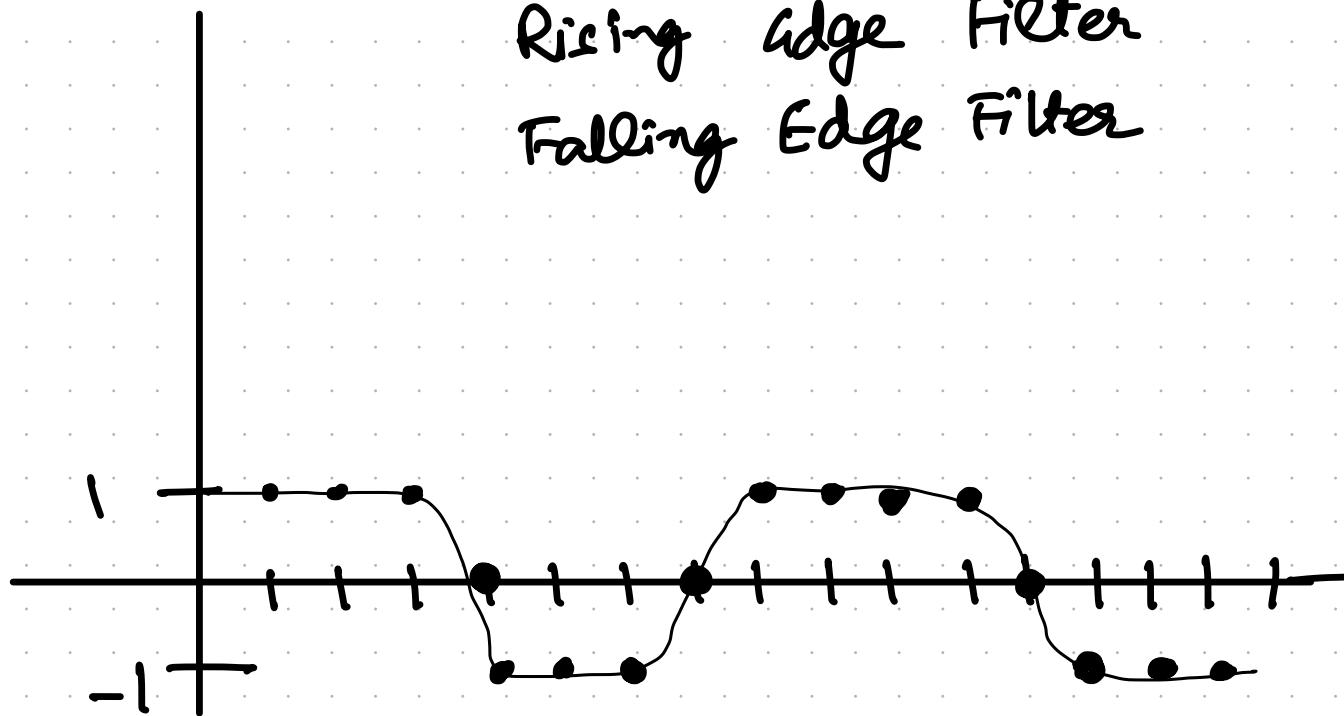
Can we say - RELU ( $x_{t-k:t+k} \otimes F$ )  
gives us low amplitudes?

LOW AMPLITUDE FILTER  $[1, -1, -1]$

HIGH Amplitude Filter

Rising Edge Filter

Falling Edge Filter

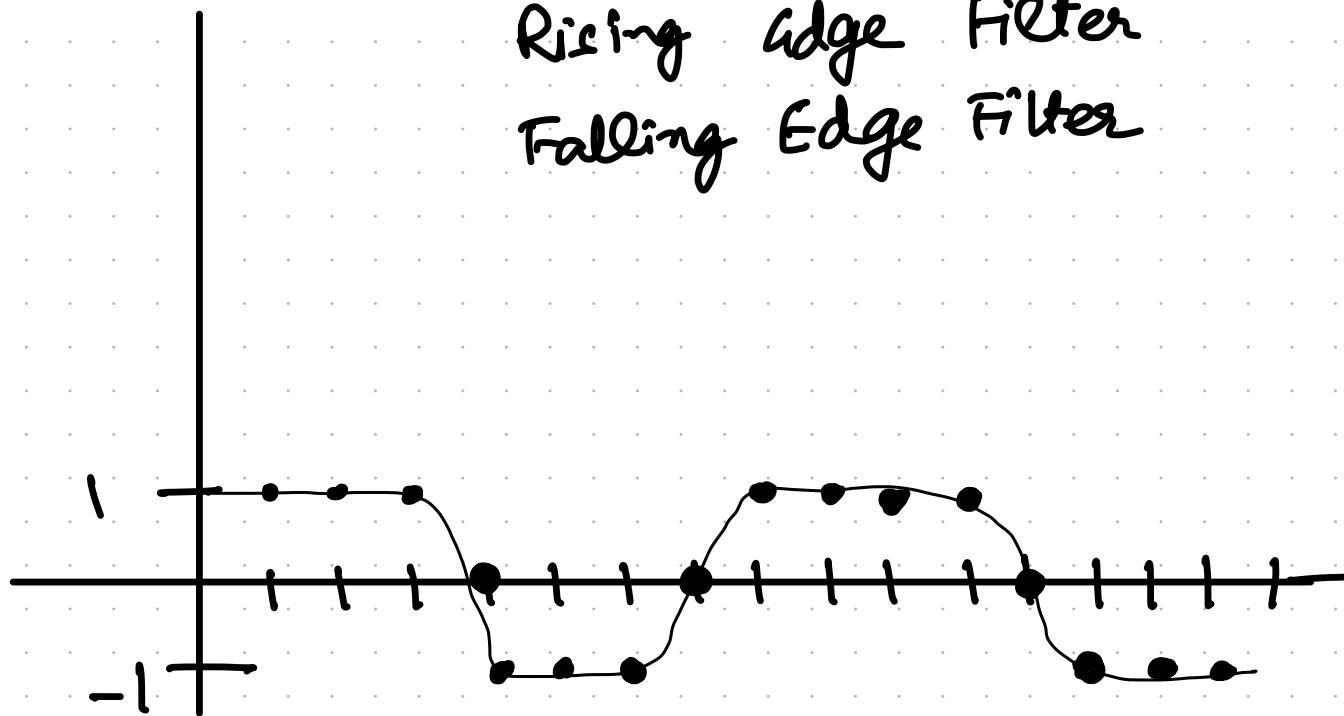


LOW AMPLITUDE FILTER  $[1, -1, -1]$

HIGH Amplitude Filter  $[1, 1, 1]$

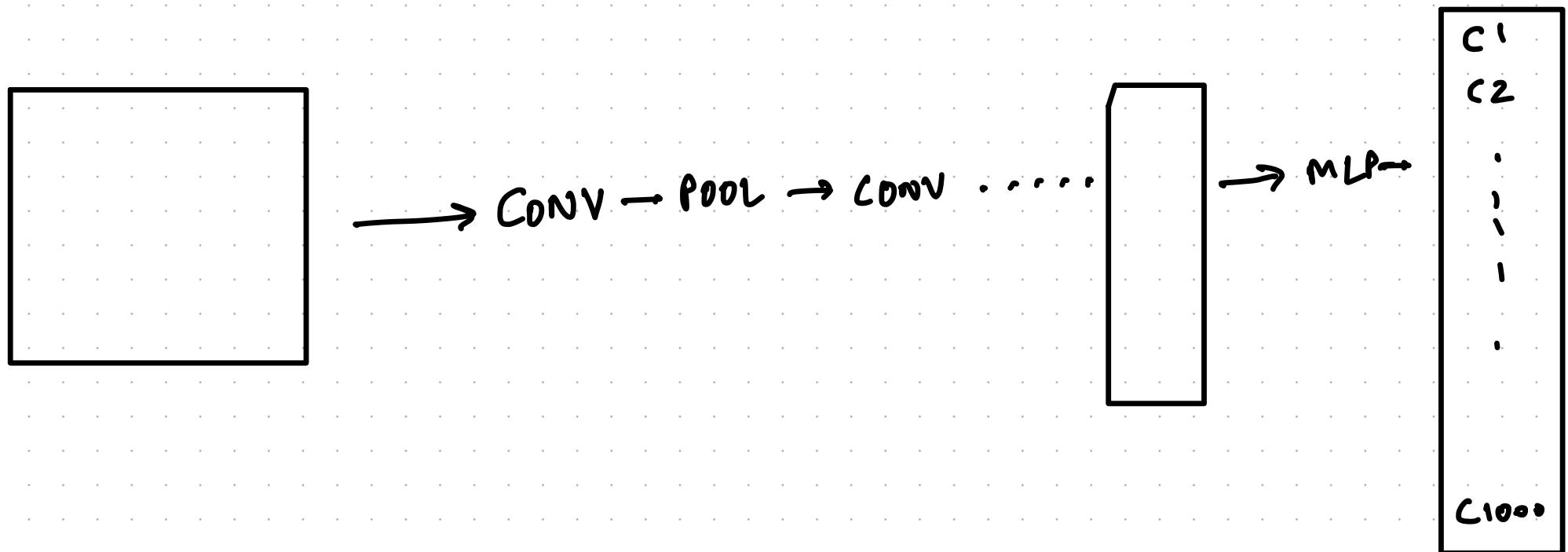
Rising Edge Filter  $[-1, 0, 1]$

Falling Edge Filter  $[1, 0, -1]$



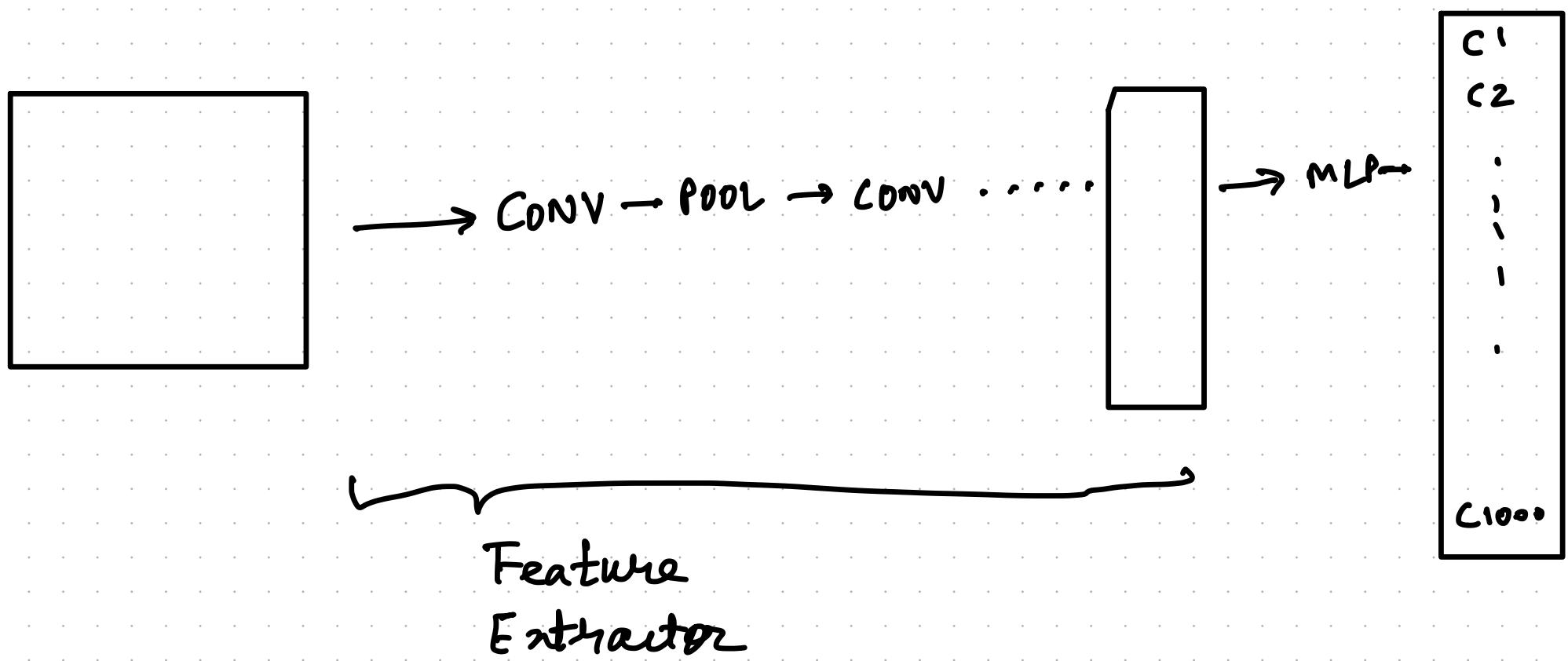
# Transfer learning

- Say we have a net trained on Imagenet  
(1000 classes)



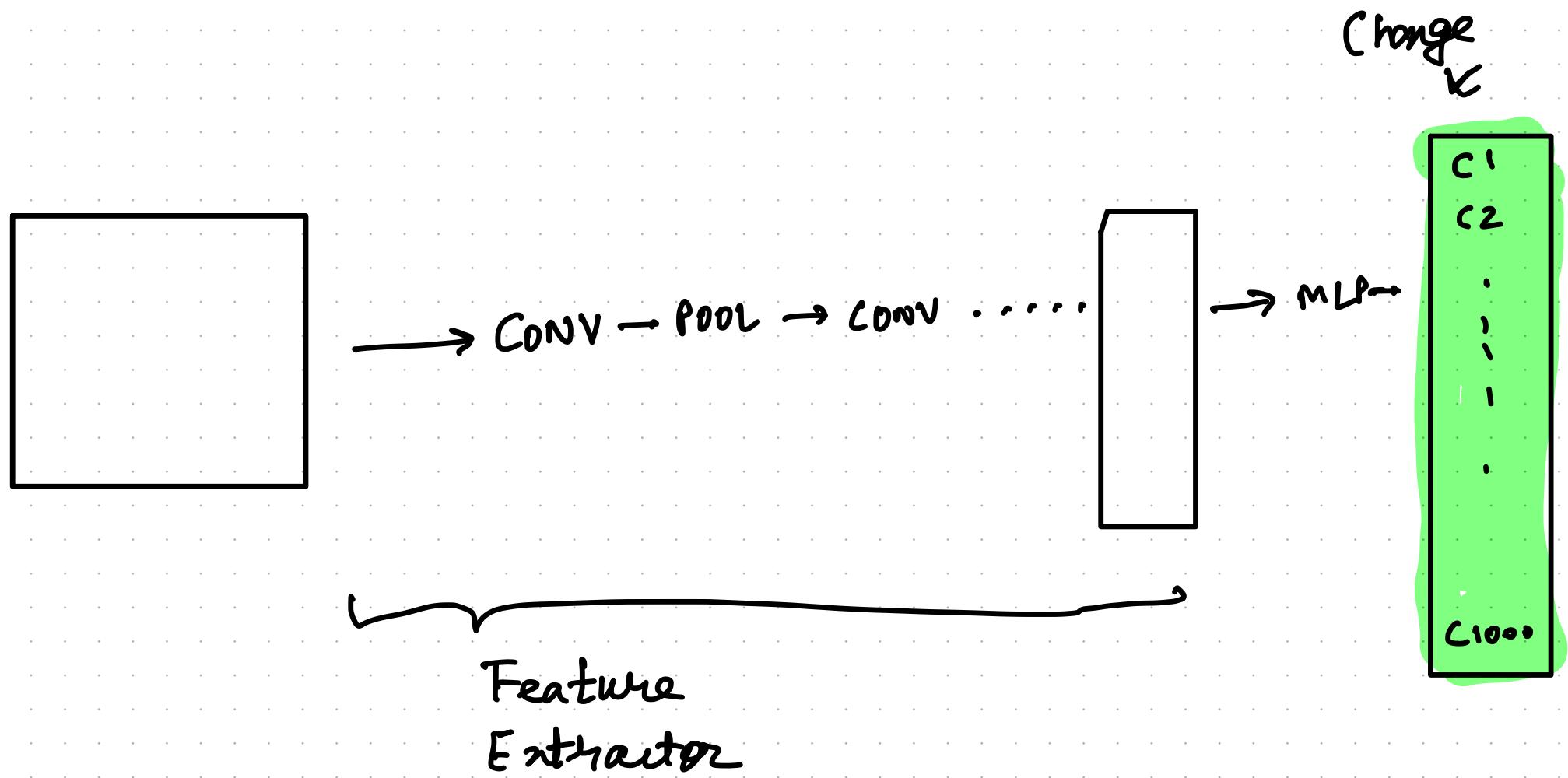
# Transfer learning

- Say we have a net trained on Imagenet (1000 classes)



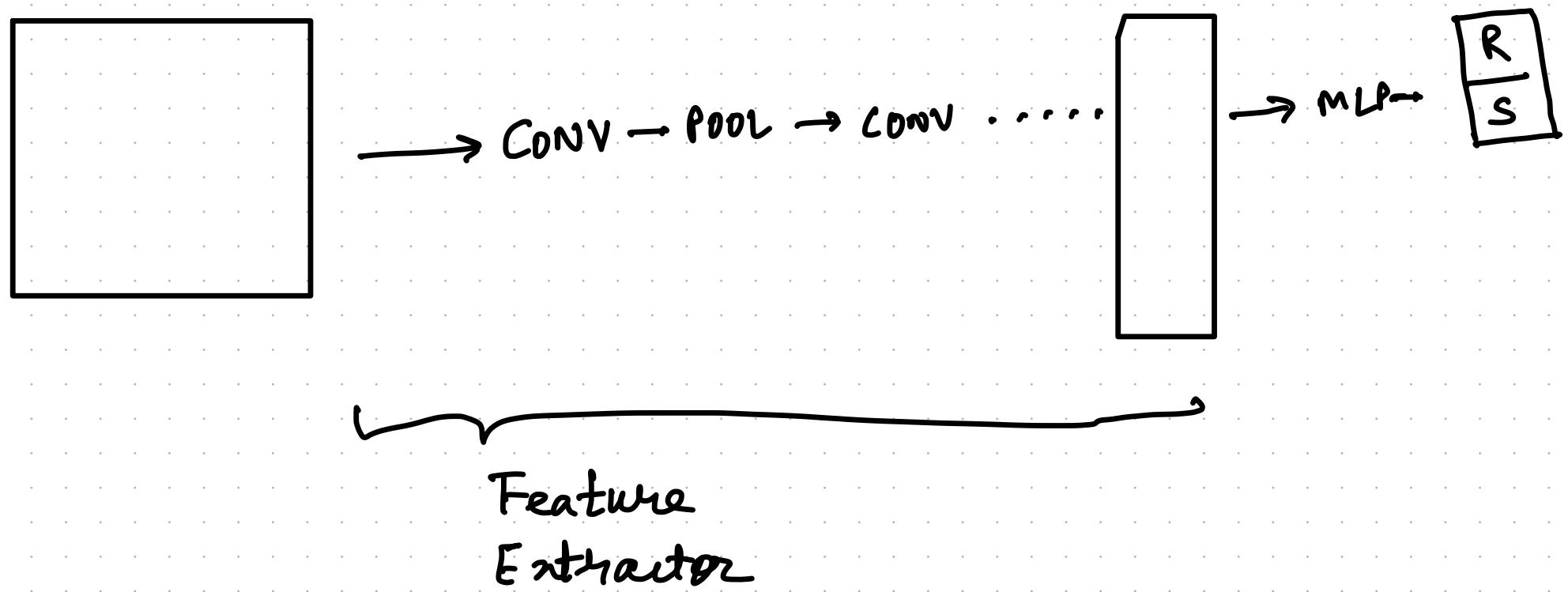
# Transfer Learning

- We now have our dataset (say R vs S)



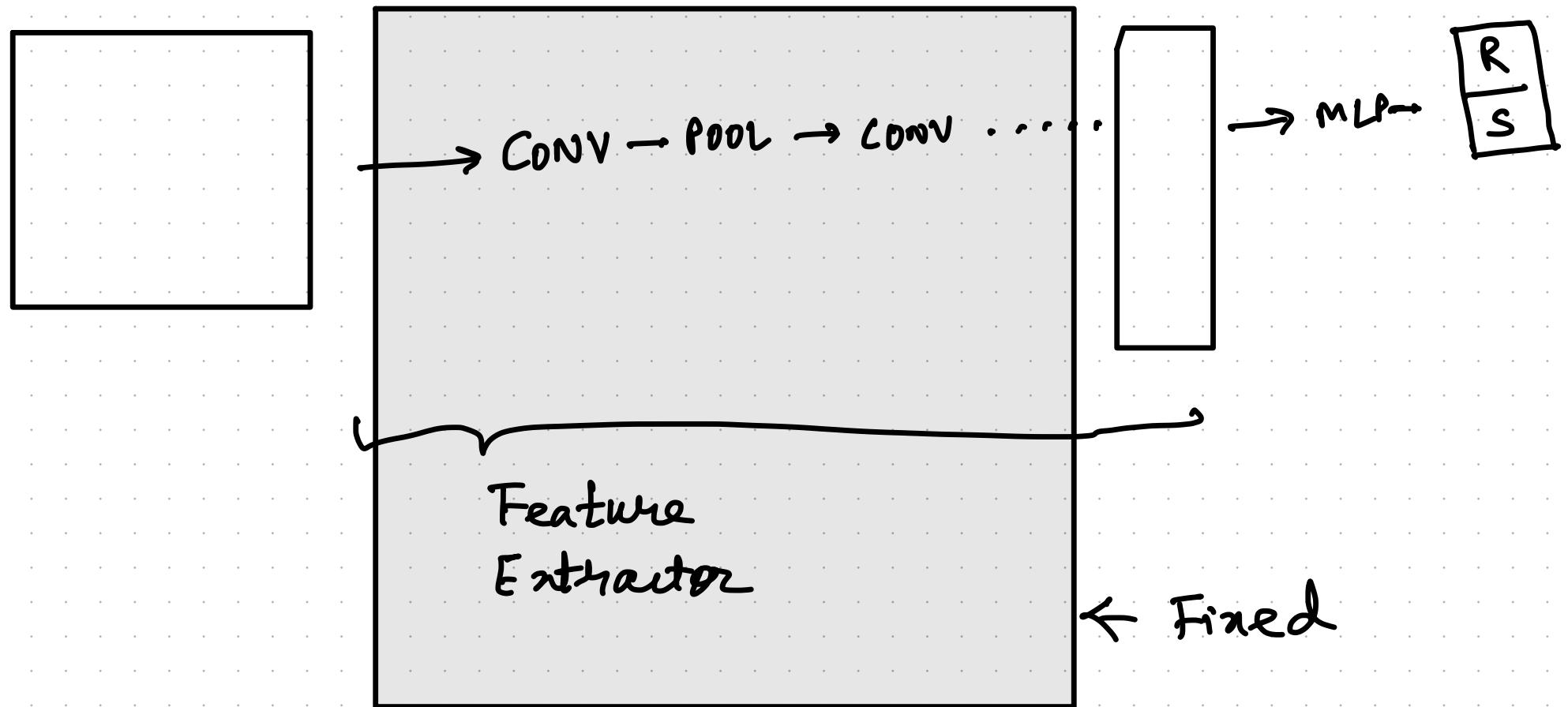
# Transfer learning

- We now have our dataset (say R vs S)



# Transfer learning

- We now have our dataset (say R vs S)



# Transfer Learning

- We now have our dataset (say R vs S)

